

### AMENDMENTS TO THE CLAIMS

1. (Currently amended) An agricultural composition comprising:
  - a) a monoterpene alcohol portion comprising a pine oil with an alcohol content of at least 60% by weight; and
  - b) ~~—b)~~ a fatty acid soap from the combination of either or both tall oil, or a fatty acid compound, with an alkali metal compound, wherein said agricultural composition comprises sufficient fatty acid soap and/or sufficient foam enhancing agent to allow the composition to be applied as, or to produce, a foam having at least a surface monolayer of bubbles during use; and
  - c) a fertilizer.
2. (Previously presented) An agricultural composition as claimed in claim 1, wherein the monoterpene alcohol portion comprises pine oil having an alcohol content of at least 80%.
3. (Cancelled)
4. (Previously presented) An agricultural composition as claimed in claim 1, wherein the fatty acid soap is derived substantially entirely from tall oil, and wherein the ratio of tall oil to pine oil used in preparing the composition is within the range of 10:80 to 25:60 by weight.
5. (Cancelled)
6. (Previously presented) An agricultural composition as claimed in claim 1, wherein the monoterpene alcohol portion and the fatty acid soap comprise at least 55% by weight pine oil.
7. (Previously presented) An agricultural composition as claimed in claim 1, wherein the monoterpene alcohol portion further comprises at least one monoterpene alcohol or plant derived oil containing at least one monoterpene alcohol.
8. (Previously presented) An agricultural composition as claimed in claim 7 wherein the at least one monoterpene alcohol or plant derived oil containing at least one monoterpene alcohol is selected from the group consisting of pinenes, terpineols, borneols, isoborneols, eucalyptus oil, citronellol, liminol, and oils from the citrus family.
9. (Currently amended) An agricultural composition as claimed in claim 1, further comprising at least one member from the group consisting of mono-cyclic ~~monoterpene~~ monoterpene aldehydes, mono-cyclic ~~monoterpene~~ monoterpene ketones, bridged mono-cyclic monoterpene aldehydes, bridged mono-cyclic monoterpene ketones, internally bridged monocyclic monoterpenes, unbridged monocyclic monoterpenes, anethols, fenchols, members of

**Appl. No.** : 09/673,987  
**Filed** : January 8, 2001

the limonene family, members of the camphene family, members of the thujol family, dipentes, members of the eugenol family, members of the phellandrene family, and cavarcols, and simple substituted derivatives of the foregoing.

10. (Cancelled)

11. (Previously presented) An agricultural composition as claimed in claim 1, wherein the monoterpene alcohol portion and the fatty acid soaps comprise a maximum of 35% by weight of tall oil and fatty acid soaps.

12. (Previously presented) An agricultural composition as claimed in claim 11 wherein the monoterpene alcohol portion and the fatty acid soaps comprise between 12 and 25% by weight tall oil and fatty acid soaps derived therefrom.

13. (Cancelled)

14. (Previously presented) An agricultural composition as claimed in claim 1, wherein the amount of fatty acid soap present is sufficient to produce at least monolayer of foam covering at least 60% of foliage surface area to which the agricultural composition is applied.

15. (Cancelled)

16. (Previously presented) An agricultural composition as claimed in claim 1, further comprising at least one carrier or diluent selected from the group consisting of water and water-miscible solvents.

17. (Previously presented) An agricultural composition as claimed in claim 1, further comprising at least one component selected from the group consisting of surfactants, foaming agents, emulsifiers, pesticides, and fertilizing components.

18. (Cancelled)

19. (Previously presented) A ready to use composition comprising an agricultural composition as claimed in claim 1, wherein the agricultural composition is diluted up to 1:9 with diluent comprising water.

20. (Previously presented) A method of killing or damaging undesired plants comprising applying a composition comprising the composition of claim 1 to the foliage of the undesired plants.

21. (Previously presented) A composition of claim 1, diluted with water to a concentration below a thresh-hold in which there is significant herbicidal action, wherein the diluted composition is for use as a pesticide.

**Appl. No.** : 09/673,987  
**Filed** : January 8, 2001

22. (Currently amended) A method of preparation of an agricultural composition comprising:  
a) combining a monoterpene alcohol portion comprising a pine oil with an alcohol content of at least 60% by weight with at least one tall oil, and/or at least one fatty acid compound and at least one fertilizer;

b) dissolving an alkaline material in water; and

c) reacting the components of step a) with the components of step b).

23. (Currently amended) The method of claim 22, further comprising adding in step a) at least one material selected from the group consisting of plant derived monoterpene alcohols, plant derived oils containing monoterpene alcohols, mono-cyclic ~~monoterpene~~ monoterpene aldehydes, mono-cyclic ~~monoterpene~~ monoterpene ketones, bridged mono-cyclic monoterpene aldehydes, bridged mono-cyclic monoterpene ketones, internally bridged monocyclic monoterpenes, unbridged monocyclic monoterpenes, and simple substituted derivatives of the foregoing.

24. (Previously presented) The method of claim 22, wherein the pine oil has a total alcohol content of at least 80% by weight.

25. (Previously presented) The method of claim 22 wherein, apart from water, at least 55% by weight of pine oil is present in steps a) and c).

26-27. (Cancelled)

28. (Previously presented) The method of claim 22 comprising the steps of:

i) combining a pine tall oil with a pine oil having a total alcohol content of at least 60%, wherein the proportion of tall oil to pine oil is within the range of 10:80 through 25:60 inclusive;

ii) dissolving a metal hydroxide in water; and

iii) combining the dissolved hydroxide with the components of step (i) and allowing to react until a soap is formed.

29. (Previously presented) A composition prepared according to the method of claim 28.

30. (Previously presented) A method of killing or damaging unwanted plants comprising applying a composition as claimed in claim 29 to the foliage of the unwanted plants as a herbicide.

31. (Cancelled)

32. (Currently amended) A method of killing or damaging targeted plants, said method comprising:

(a) applying the preparing a composition consisting essentially of:

(i) a monoterpene alcohol portion comprising a pine oil with an alcohol content of at least 60% by weight; and

(ii) a fatty acid soap from the combination of either or both tall oil, or a fatty acid compound, with an alkali metal compound, wherein said agricultural composition comprises sufficient fatty acid soap and/or sufficient foam enhancing agent to allow the composition to be applied as, or to produce, a foam having at least a surface monolayer of bubbles during use as claimed in claim 1; and

(b) applying the composition to the foliage of said targeted plants as a selective foliar applied herbicide, wherein said composition is diluted to a range defined by observable thresholds with an upper limit being the concentration for significant or irreparable damage to desirable plants, and a lower limit being no significant damage to targeted plants, wherein the desirable plants are crop plants, forest plants, lawn plants, plantation plants or orchard plants.

33. (Previously presented) The method of claim 32, wherein the upper limit is defined by 10% or more of desirable plants being killed, and the lower limit by less than 10% or more of targeted plants being killed.

34. (Cancelled)

35. (Previously presented) A method of killing targeted plants or funguses, said method comprising diluting the composition of claim 1 to below a level in which significant or irreparable damage is inflicted on desirable plants and applying the diluted composition to the targeted plants or funguses.

36-37. (Cancelled)

38. (Previously presented) The method of claim 35, wherein the method of application maximizes the production of foam or entrapped bubbles in the applied mixture.

39. (Previously presented) The method as claimed in claim 35, wherein the composition is applied in a manner wherein at least a monolayer of bubbles are formed over at least 50% of the leaf foliage surface area to which the composition is applied.

40. (Previously presented) The method of claim 39, wherein a half-life of the formed bubbles, based on a 50% drop in the original covered surface area, is at least 2 minutes.

41. (Cancelled)

**Appl. No.** : **09/673,987**  
**Filed** : **January 8, 2001**

42. (Previously presented) The method of claim 40, wherein the half-life is at least 10 minutes.

43. (Previously presented) The method of claim 39, wherein application is by spray through a foam inducing nozzle.

44-46. (Cancelled)

47. (Previously presented) The agricultural composition of claim 1, further comprising a foam enhancing agent.

48. (Previously presented) The agricultural composition of claim 1, further comprising at least one carrier or diluent.

49. (Previously presented) The method of claim 28, further comprising adding optional components.

50. (Previously presented) An agricultural composition as claimed in claim 1, further comprising at least one compatible fungicidal agent.

51. (Previously presented) A composition of claim 1, diluted with water to a concentration below a threshold in which there is significant herbicidal action, wherein the diluted composition is for use as a fungicide.

52. (New) A method of treating an insect pest comprising:

(a) preparing an agricultural composition comprising:

(i) a monoterpene alcohol portion comprising a pine oil with an alcohol content of at least 60% by weight; and

(ii) a fatty acid soap from the combination of either or both tall oil, or a fatty acid compound, with an alkali metal compound, wherein said agricultural composition comprises sufficient fatty acid soap and/or sufficient foam enhancing agent to allow the composition to be applied as, or to produce, a foam having at least a surface monolayer of bubbles during use, and

(b) diluting the agricultural composition with water to a concentration below a threshold in which there is significant herbicidal action; and

(c) applying the agricultural composition in the vicinity of an insect pest.